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MICHAEL CHAN NCR CORPORATION 1700 SOUTH PATTERSON BLVD DAYTON, OH 45479-0001			EXAMINER REDDING, THOMAS M	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/809,661

Applicant(s)

SIMMONS, DAVID GREGG

Examiner

Thomas M. Redding

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

Applicant's response received on 5/7/2007 is fully considered herein. Claims 1-6 are currently pending.

***Claim Rejections - 35 USC § 103 (repeated from previous office action)***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of applicant's admitted prior art (background of the specification, pages 1-3), Cahill et al. (US 5,917,965 A) and Tam et al. (5,754,186).

Regarding claim 1, applicant discloses admitted prior art comprising:

an automated teller machine ("ATM" at page 1, line 8) including means for receiving an envelope from an ATM customer conducting an ATM transaction ("envelope" at page 1, line 9), and means for printing a transaction number on the envelope received from the ATM customer ("transaction number" at page 1, line 16);  
an image capture workstation for capturing a front image of the envelope and

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a rear image of the envelope ("image capture workstation ... images of items including the envelope is captured" at page 2, lines 102; "front" and "rear" images at page 2, lines 17-19); and

a keying and balancing workstation ("keying and balancing workstation" at page 2, line 8) including a display ("display terminal" at page 2, line 10), and a processor (the keying and balancing workstation is a processor) including means for processing the front and rear images of the envelope ("FLIP" and "ROTATE" at page 2, lines 20-25).

Applicant's admitted prior art does not teach processing the front and rear images to present a superimposed image of at least a portion of the front image and at least a portion of the rear image on the display.

Cahill, working in the same area of endeavor of banking automation, teaches displaying the front and rear images of a an item at the same time ("According to the invention, the front of the check may be displayed in maximum width horizontally in the left window. The back of the check then may be displayed in the right window vertically and enlarged to display the endorsement section." Cahill, column 6, line 41; also figure 14).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the simultaneous image display of Cahill with the applicants admitted prior art in order to minimize the amount of time required to search for the transaction number in the envelope images ("optimizes (i.e. minimizes) the amount of

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time a user would have to search for information on the check images.", Cahill, column 6, line 38).

The combination of applicant's prior art and Cahill does teach presenting both the front and rear images of the envelope at the same time, but does not describe the superimposition of the two images.

Tam working in a similar problem solving area of image blending, describes superimposition of images ("transparently overlaying images", Tam, column 2, line 43).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the envelope processing and simultaneous image display of the combination of Cahill and the applicants admitted prior art with Tam in order to view both sides of the envelope at the same time ("a user can simultaneously view two overlaid windows or layers of information", Tam, column 2, line 44) while making "efficient use of the available display screen space for observation of images and windows containing images-" (Tam, column 2, line 25).

Regarding claim 3, the combination of applicant's admitted prior art, Cahill and Tam described above provides a method for displaying the front and rear images of the deposited envelope such that at least a portion of the front image of the deposited envelope and at least a portion of the rear image of the deposited envelope superimpose.

Regarding claim 4, the combination of applicant's admitted prior art, Cahill and Tam described above in the rejection of claim 1, and specifically the elements utilized in the applicant's admitted prior art, describe printing a transaction number on an envelope deposited at a self-service terminal, capturing an image of one side of the deposited envelope and capturing an image of an opposite side of the deposited envelope. The elements in the combination above utilized from Tam describe combining two images into a single image to make efficient use of display screen space describe superimposing the images of the deposited envelope on a display to allow an operator to read the transaction number from the images independent of which side the transaction number was printed on the envelopes.

Regarding claim 5, the combination of applicant's admitted prior art, Cahill and Tam described above in the rejection of claim 1 teaches the method of:

- superimposed front and rear images of the deposited envelope on a display, wherein the transaction number appears in only one of the images.
- reading a transaction number from superimposed front and rear images of the deposited envelope on a display, wherein the transaction number appears in only one of the images;
- and keying in the transaction number which appears in the one image.

Regarding claim 6, the combination of applicant's admitted prior art, Cahill and Tam described above in the rejection of claim 1 teaches an apparatus for:

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enabling a human operator to read a transaction number from first and second images of an envelope which has been deposited at a self-service terminal, the apparatus comprising:

a display; and

means for displaying the first and second images on the display so that at least a portion of the first image and at least a portion of the second image superimpose.

3. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over combination of applicant's admitted prior art (background of the specification, pages 1-3), Cahill et al. (US 5,917,965 A), Tam et al. (5,754,186) and Blum et al. (US 6,917,301 B2).

Regarding claim 2, while the above combination of applicant's prior art, Cahill and Tam does teach all the elements of claim 1, it does not teach a means for processing the superimposed image to present a rotated image of the superimposed image on the display such that the superimposed image and the rotated image of the superimposed image are presented adjacent to each other on the display.

Blum working in a similar problem solving area of display technology, teaches a display system with "variable image orientation" (Blum, column 7, line 14), "where each version is oriented for viewing from a respective different direction" (Blum, column 7, line 21, also figure 3).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the display of an image in multiple orientations of Blum with the previous combination of applicant's prior art, Cahill and Tam in order to "make the image more easily seen and understood." (Blum, column 2, line 58).

4. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over combination of applicant's admitted prior art (background of the specification, pages 1-3), Cahill et al. (US 5,917,965 A), Tam et al. (5,754,186) and Hagedorn (5,772,212).

Regarding claim 2, while the above combination of applicant's prior art, Cahill and Tam does teach all the elements of claim 1, it does not teach a means for processing the superimposed image to present a rotated image of the superimposed image on the display such that the superimposed image and the rotated image of the superimposed image are presented adjacent to each other on the display.

Hagedorn working in a similar problem solving area of unambiguous display, teaches a presentation system that uses redundant inverted images to guarantee readability regardless of rotation (Hagedorn, Figure 1, reference numbers 12 and 12') where the card shown is described "to exhibit an "A" 12 in the upper-left corner of the card, while a like albeit 180-degree "A" 12' is preferably shown inverted in the diagonally opposite lower-right corner." (Hagedorn, Column 8, line 22).



It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the display of a pair of images, one rotated 180 degrees of the other, of Hagedorn with the previous combination of applicant's prior art, Cahill and Tam in order to ensure that the image is quickly and easily readable ("aggravated by having to rotate cards 180-degrees for correct viewing." Hagedorn, column 5, line 28).

### ***Response to Arguments***

5. This action is Final as the original grounds for rejection are proper. Applicant's arguments see applicant's reply filed 5/7/2007, with respect to the rejections of claims 1-6 under 103(a) have been fully considered and are not persuasive. Therefore the rejection is held final.

**Summary of Applicant's Remarks:** "Tam et al. ("Tam") teaches away from the invention of Cahill et al. ("Cahill")" because Cahill teaches "a check-centric display interface in which the front and back check images are displayed in separate windows, there would be no motivation to modify Cahill to overlay the front and back check images as the Office would like to suggest" at response page 4.

**Examiner's Response:** First, the rejection is based on applicant's admitted prior art, as modified by Cahill and Tam. The Cahill reference is a secondary teaching, relied

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upon as teaching the concept of displaying the front and rear images of a an item at the same time ("According to the invention, the front of the check may be displayed in maximum width horizontally in the left window. The back of the check then may be displayed in the right window vertically and enlarged to display the endorsement section." Cahill, column 6, line 41, also figure 14). In the rejection, the admitted prior art is modified according to the teaching of Cahill by displaying front and back images of a check at the same time. The modification is not a bodily incorporation of Cahill into the admitted prior art. Rather, Cahill is a teaching of the concept of simultaneously displaying front and back images in any manner. The admitted prior art DOES NOT teach away from a modification according to the teachings of Cahill. Rather, the modification of Cahill enhances and improves upon the prior art by obviating the need to flip images (refer to applicant's specification page 2, line 20).

The Tam reference is NOT relied upon as modifying the system of Cahill. Rather, the Tam reference is relied upon as teaching the concept of a superimposed display of a plurality of images, and Tam is used to modify the admitted prior art as modified by Cahill. Again, both Cahill and Tam are teaching references, and it is the admitted prior art that is modified by both. Given the admitted prior art as modified according to the teaching of Cahill, there is nothing that would further teach away from superimposing simultaneously displayed images.

Finally, as described above, the examiner is not suggesting that the entirety of Cahill and Tam should be somehow added to the system of the admitted prior art. Again, Cahill and Tam are relied upon as "teaching" references (i.e., references that

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teach well know concepts and techniques). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, the admitted prior art, the teaching of Cahill of simultaneous front and rear display, and the teaching of Tam of superimposed displays would have suggested the features of the claimed invention to one of ordinary skill in the art. The presently claimed invention is nothing more than a combination of a well-known bank processing techniques with well-known image display techniques. Refer to KSR INTERNATIONAL CO. v. TELEFLEX INC. ET AL., CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, No. 04-1350. Argued November 28, 2006-Decided April 30, 2007:

**103 - a patent for a combination which only unites old elements with no change in their respective functions obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men.**

Neither the enactment of §103 nor the analysis in *Graham* disturbed this Court's earlier instructions concerning the need for caution in granting a patent based on the combination of elements found in the prior art. For over a half century, the Court has held that a "patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men." *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U. S. 147, 152 (1950). This is a principal reason for declining to allow patents for what is obvious. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. Three cases decided after *Graham* illustrate the application of this doctrine.

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**103 - when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result**

In *United States v. Adams*, 383 U. S. 39, 40 (1966), a companion case to *Graham*, the Court considered the obviousness of a "wet battery" that varied from prior designs in two ways: It contained water, rather than the acids conventionally employed in storage batteries; and its electrodes were magnesium and cuprous chloride, rather than zinc and silver chloride. The Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result. 383 U. S., at 50-51. It nevertheless rejected the Government's claim that Adams's battery was obvious. The Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious. *Id.*, at 51-52. When Adams designed his battery, the prior art warned that risks were involved in using the types of electrodes he employed. The fact that the elements worked together in an unexpected and fruitful manner supported the conclusion that Adams's design was not obvious to those skilled in the art.

**103 - where the combination of old elements performed a useful function, but it added nothing to the nature and quality of the subject matter already patented, the patent failed under §103**

In *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U. S. 57 (1969), the Court elaborated on this approach. The subject matter of the patent before the Court was a device combining two pre-existing elements: a radiant-heat burner and a paving machine. The device, the Court concluded, did not create some new synergy: The radiant-heat burner functioned just as a burner was expected to function; and the paving machine did the same. The two in combination did no more than they would in separate, sequential operation. *Id.*, at 60-62. In those circumstances, "while the combination of old elements performed a useful function, it added nothing to the nature and quality of the radiant-heat burner already patented," and the patent failed under §103. *Id.*, at 62 (footnote omitted).

**103 - when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious**

Finally, in *Sakraida v. AG Pro, Inc.*, 425 U. S. 273 (1976), the Court derived from the precedents the conclusion that when a patent "simply arranges old elements with each performing the same function it had been known to perform" and yields no more than one would expect from such an arrangement, the combination is obvious. *Id.*, at 282.

**Summary of Applicant's Remarks:** The applicant states "Since the invention of Cahill teaches a check-centric display interface in which the front and back check images are displayed in separate windows, there would be no motivation to modify Cahill to overlay the front and back check images as the Office would like to suggest", response page 4, paragraph 6.

**Examiner's Response:** First, as described above, the Cahill reference is NOT modified by Tam. Rather, the admitted prior art is modified according to the teachings of Cahill and Tam. Regarding the admitted prior art as modified by Cahill, the examiner stated in the previous office action:

"It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the simultaneous image display of Cahill with the applicants admitted prior art in order to minimize the amount of time required to search for the transaction number in the envelope images ("optimizes (i.e. minimizes) the amount of time a user would have to search for information on the check images.", Cahill, column 6, line 38)."

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to modify the

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admitted prior art comes directly from the Cahill reference. A prima facie case has been established.

Regarding the Tam modification, the examiner stated in the previous office action:

"It would have been obvious at the time the invention was made to one of ordinary skill in the art to combine the envelope processing and simultaneous image display of the combination of Cahill and the applicants admitted prior art with Tam in order to view both sides of the envelope at the same time ("a user can simultaneously view two overlaid windows or layers of information", Tam, column 2, line 44) while making "efficient use of the available display screen space for observation of images and windows containing images" (Tam, column 2, line 25)."

**Summary of Applicant's Remarks:** In a second point, the applicant also points out "Since the system of Cahill is a complete and fully operational system in which a user can search for information on check images in minimal time, there would be no motivation to modify Cahill to overlay the front and back check images as the Office would like to suggest", response page 4, paragraph 7.

**Examiner's Response:** Again, the Cahill reference is not bodily incorporated into the disclosure of the prior art system. Cahill is relied upon as a teaching.

Cahill gives no evidence that he considered a single window display with overlaid images in his development, so it certainly is believable that the system of Cahill was providing optimal results within the domain of his testing. By overlaying two images, as

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Tam describes, "a user can simultaneously view two overlaid windows or layers of information" (Tam, column 2, line 44). This obviously should provide even faster performance than the original system of Cahill, as it is no longer necessary for the operator to shift his eyes and focus on a new area of the screen in order to fully evaluate an envelope.

Further, the motivation given for the modification of the prior art by the teachings of Cahill and Tam was not drawn to the speed of the operation but was in fact concerned with the improved use of display space (e.g. a larger overlaid image could be displayed in the area taken by two separate windows, or additional information could be displayed if the overlaid image was kept at the original size).

The applicant's final point was "Neither Hagedorn nor Blum has anything to do with a system and method of displaying images of an envelope which has been deposited at a self-service terminal, such as an automated teller machine, as in the present application", response, page 5, 1<sup>st</sup> paragraph.

The MPEP states that to rely on a reference under 35 U.S.C. 103, it must be analogous prior art. Specifically:

**The examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also In re Deminski, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his**

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problem.”); *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (Where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved). (MPEP §2141.01(a))

It is not required that the display technique referenced be in the same field of endeavor, but only that it be in a similar problem solving area, that of providing a display that can unambiguously read from either of two orientations 180 degrees apart. Both of the references cited, Hagedorn and Blum, address the problem of making a visual element intelligible when viewed both right side up and up-side-down. This is the same problem that occurs with viewing an envelope in an unknown rotational orientation.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M. Redding whose telephone number is (571) 270-1579. The examiner can normally be reached on Mon - Fri 7:30 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian P. Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TMR/

/Brian P. Werner/  
Supervisory Patent Examiner (SPE), Art Unit 2624

